

# इंटरनेट

# मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 5366 (1978): Core Drills, Morse Taper Shanks [PGD 32: Cutting tools]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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**AMENDMENT NO. 1    AUGUST 1982**  
**TO**  
**IS : 5366-1978   SPECIFICATION FOR CORE**  
**DRILLS, MORSE TAPER SHANKS**  
**( First Revision )**

**Alterations**

( Page 2,    ble 1, tenth column, seventh row ) — Substitute ' $\begin{smallmatrix} +8 \\ -8 \end{smallmatrix}$ ' for  
' $\begin{smallmatrix} +6 \\ -14.5 \end{smallmatrix}$ '.

( Page 3, Table 1, tenth column, eighth row ) — Substitute ' $\begin{smallmatrix} +5 \\ -4 \end{smallmatrix}$ ' for  
' $\begin{smallmatrix} +5 \\ -19 \end{smallmatrix}$ '.

( Page 4, Table 1, tenth column, fifth row ) — Substitute ' $\begin{smallmatrix} +5 \\ -3 \end{smallmatrix}$ ' for  
' $\begin{smallmatrix} +5 \\ -25 \end{smallmatrix}$ '.

( EDC 45 )

**Indian Standard**  
**SPECIFICATION FOR**  
**CORE DRILLS, MORSE TAPER SHANKS**  
*( First Revision )*

**REAFFIRMED**  
**2007**

1. **Scope** — Covers the dimensions and requirements for core drills with morse taper shanks.
2. **Dimensions** — As given in Table 1.
3. **General Requirements**
  - 3.1 The drills shall have three flutes up to and including 20 mm size and four flutes for sizes over 20 mm.
  - 3.2 'Tool type', unless otherwise specified 'N' according to IS:5099-1969 'Technical supply conditions for twist drills'.
  - 3.3 When the intermediate sizes are required, reference shall be made to diameter range column for corresponding dimensions.
  - 3.4 *Core Drills for Pre-finishing Operations* — When core drills are used for pre-finishing operations, the following amount of stock removal is recommended and the diameters of the core drills shall be calculated accordingly:

All dimensions in millimetres.

Diameter, <i>d</i>		Stock Removal
Over	Up to and including	
—	10	0.20
10	18	0.25
18	30	0.30
30	50	0.40

**Note** — Observance of this recommendation leads in some cases to the use of special diameters, marked with asterisks in Table 1.

- 3.5 For requirements not covered in this standard, it shall conform to the requirements of IS: 5099-1969, except tests.
4. **Sampling** — The sampling and criteria of acceptance shall be in accordance with IS: 7778-1975 'Methods for sampling small tools'.
5. **Designation**
  - 5.1 A core drill with morse taper shank having  $d=10.00$  mm, made from high speed steel for right-hand cutting and 'tool type' N and conforming to this standard shall be designated as:  

Core Drill 10.00 IS : 5366
  - 5.1.1 When the core drill is required with 'tool type' other than N, an appropriate 'tool type' H or S shall be mentioned in the designation, immediately after the size.
6. **Certification Marking** — Details available with the Bureau of Indian Standards.

Adopted 24 November 1978

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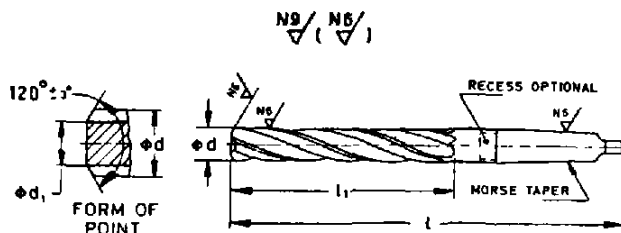
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BUREAU OF INDIAN STANDARDS  
 MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
 NEW DELHI 110002

TABLE 1 DIMENSIONS FOR CORE DRILLS WITH MORSE TAPER SHANKS

( Clause 2 )

All dimensions in millimetres.



d h8		d <sub>1</sub> ≈	Minimum Diameter of Pre-drilled Hole ≈	Range of Diameters d		l <sub>1</sub>	Tolerance on l <sub>1</sub>	l	Tolerance on l	Morse Taper	
Choice I	Choice II			Over	Up to and Including						
7-80		5.1	5.5	7.50	8.50	75	±6	156	±6	1	
8-00		5.2	5.8								
	8.20	5.3	5.7								
	8.50	5.5	6.0								
8-80		5.7	6.2	8.50	9.50	81	±6	162	±6		
9-00		5.8	6.3								
	9.20	6.0	6.4								
	9.50	6.2	6.6								
9-80		6.4	6.9	9.50	10.60	87	+7 -6	168	+7 -6		
10-00		6.5	7.0								
	10.20	6.6	7.1								
	10.50	6.8	7.4								
10.75*		7.0	7.5	10.60	11.80	94	±7	175	±7		
11-00		7.0	7.6								
	11.20	7.2	7.7								
	11.50	7.3	7.8								
11-75*		7.5	8.0	11.80	13.20	101	±7	182	±7		
	11.80	7.6	8.2								
	12.00	7.7	8.3								
	12.20	7.8	8.4								
12-00		7.9	8.5	13.20	14.00	108	+8 -7	189	+8.5 -7		
	12.50	8.1	8.8								
	12.80	8.3	9.0								
	13.00	8.4	9.1								
13-00		8.6	9.2	14.00	15.00	114	±6	212	+6 -14.5	2	
	13.50	8.8	9.4								
	13.75*	8.9	9.6								
	13.80	9.0	9.7								
14-00		9.1	9.8	15.00	16.00	120	+5 -6	218	+5 -6		
	14.25	9.3	10.0								
	14.50	9.4	10.2								
	14.75	9.6	10.3								
15-00		9.8	10.5	15.00	16.00	120	+5 -6	218	+5 -6		
	15.25	9.9	10.7								
	15.50	10.1	10.8								
	15.75	10.2	11.0								
16-00		10.4	11.2								

\*These diameters are intended to be used only for pre-finishing operations ( see 3.4 ).

( Continued )

TABLE 1 DIMENSIONS FOR CORE DRILLS WITH MORSE TAPER SHANKS—Contd

All dimensions in millimetres.

d h8		d <sub>1</sub> ≈	Minimum Diameter of Pre-drilled Hole ≈	Range of Diameters d		l <sub>1</sub>	Tolerance on l <sub>1</sub>	l	Tolerance on l	Morse Taper
Choice I	Choice II			Over	Up to and Including					
	16.25	10.6	11.4	16.00	17.00	125	±5	223	±5	2
	16.50	10.7	11.6							
16.75		10.9	11.7							
17.00		11.1	11.9							
	17.25	11.2	12.1	17.00	18.00	130	±5	228	±5	
	17.50	11.4	12.2							
17.75		11.5	12.4							
18.00		11.7	12.6							
	18.25	11.9	12.8	18.00	19.00	135	±5	233	±5	
	18.50	12.0	13.0							
18.70*		12.2	13.1							
	18.75	12.2	13.1							
	19.00	12.4	13.3	19.00	20.00	140	±5	238	±5	
	19.25	12.5	13.5							
	19.50	12.7	13.6							
19.70*		12.8	13.8							
	19.75	12.8	13.8	20.00	21.20	145	±5	243	±5	
20.00		13.0	14.0							
	20.25	13.2	14.2							
	20.50	13.3	14.4							
20.70*		13.5	14.5	21.20	22.40	150	±5	248	±5	
	20.75	13.5	14.5							
21.00		13.6	14.7							
	21.25	13.8	14.9							
	21.50	14.0	15.0	22.40	23.02	155	±5	253	+4 -5	
21.70*		14.1	15.2							
	21.75	14.1	15.2							
22.00		14.3	15.4							
	22.25	14.5	15.6	23.02	23.60	155	±5	276	+5 -19	
	22.50	14.6	15.8							
22.70*		14.8	15.9							
	22.75	14.8	15.9							
23.00		15.0	16.1	23.60	25.00	160	±5	281	±5	
	23.25	15.1	16.3							
	23.50	15.3	16.4							
23.70*		15.4	16.6							
	23.75	15.4	16.6	25.00	26.50	185	±5	286	±5	
24.00		15.6	16.8							
	24.25	15.8	17.0							
	24.50	15.9	17.2							
24.70*		16.0	17.3	25.00	26.50	185	±5	286	±5	
	24.75	16.0	17.3							
25.00		16.2	17.5							
	25.25	16.4	17.7							
	25.50	16.6	17.8	25.00	26.50	185	±5	286	±5	
25.70*		16.7	18.0							
	25.75	16.7	18.0							
26.00		16.9	18.2							
	26.25	17.1	18.4							
	26.50	17.2	18.6							

\*These diameters are intended to be used only for pre-finishing operations (see 3.4).

(Continued)

TABLE 1 DIMENSIONS FOR CORE DRILLS WITH MORSE TAPER SHANKS—Contd

All dimensions in millimetres.

$d$ h8		$d_1$ $\approx$	Minimum Diameter of Pre-drilled Hole $\approx$	Range of Diameters $d$		$l_1$	Tolerance on $l_1$	$l$	Tolerance on $l$	Morse Taper	
Choice I	Choice II			Over	Up to and Including						
	26.75	17.4	18.7	26.50	28.00	170	$\pm 5$	291	$\pm 5$	3	
	27.00	17.6	18.9								
	27.25	17.7	19.1								
	27.50	17.9	19.2								
27.10*		18.0	19.4								
28.00	27.75	18.0	19.4	28.00	30.00	175	$\pm 5$	296	$\pm 5$		
		18.2	19.6								
	28.25	18.3	19.8								
	28.50	18.5	20.0								
	28.75	18.7	20.1								
	29.00	18.8	20.3								
	29.25	19.0	20.5								
	29.50	19.2	20.6								
29.70*		19.3	20.8								
30.00	29.75	19.3	20.8								
		19.5	21.0	30.00	31.50	180	$\pm 5$	301	$\pm 5$		
	30.25	19.7	21.2								
	30.50	19.8	21.4								
	30.75	20.0	21.5								
	31.00	20.2	21.7								
	31.25	20.3	21.9	31.50	31.75	185	$\pm 5$	306	$+3$ $-5$		
31.60*	31.50	20.5	22.0								
		20.6	22.1								
32.00	31.75	20.6	22.2								
		20.8	22.4	31.75	33.50	185	$\pm 5$	334	$+5$ $-25$		
	32.50	21.1	22.6								
	33.00	21.5	23.1								
	33.50	21.8	23.5								
33.60*		21.8	23.5	33.50	35.50	190	$\pm 5$	339	$\pm 5$	4	
34.00		22.1	23.6								
	34.50	22.4	24.2								
34.60*		22.5	24.2								
35.00		22.8	24.5								
	35.50	23.1	24.8								
35.60*		23.1	24.9								
36.00		23.4	25.2								
	36.50	23.7	25.6			195	37.50	$\pm 5$	344		$\pm 5$
	37.00	24.0	25.9								
	37.50	24.4	26.2								
37.60*		24.4	26.3								
38.00		24.7	26.6	37.50	40.00	200	$\pm 5$	349	$\pm 5$		
	38.50	25.0	27.0								
	39.00	25.4	27.3								
	39.50	25.7	27.6								
39.60*		25.7	27.7								
40.00		26.0	28.0	40.00	42.50	205	$\pm 5$	354	$\pm 5$		
	40.50	26.3	28.4								
	41.00	26.6	28.7								
	41.50	27.0	29.0								
41.60		27.0	29.1								
42.00		27.3	29.4								
	42.50	27.6	29.8								

\*These diameters are intended to be used only for pre-finishing operations (see 3.4).

(Continued)



**AMENDMENT NO. 2 DECEMBER 1996  
TO  
IS 5366 : 1978 SPECIFICATION FOR CORE  
DRILLS, MORSE TAPER SHANKS**

*( First Revision )*

*( Page 1, clauses 3.2 and 3.5 ) — Substitute 'IS 5099 : 1983' for 'IS 5099 : 1969'.*

( PE 10 )

Reprography Unit, BIS, New Delhi, India

TABLE 1 DIMENSIONS FOR CORE DRILLS WITH MORSE TAPER SHANKS — *Contd*

All dimensions in millimetres.

$d$ h8		$d_1$ $\approx$	Minimum Diameter of Pre-drilled Hole $\approx$	Range of Diameters $d$		$l_1$	Tolerance on $l_1$	$l$	Tolerance on $l$	Morse Taper
Choice I	Choice II			Over	Up to and Including					
	43 00	28 0	30 1							
	43 50	28 2	30 4							
43 60*		28 3	30 5							
44 00		28 6	30 8	42 50	45 00	210	.5	359	.5	
	44 50	28 9	31 2							
44 60*		28 9	31 2							
45 00		29 2	31 5							
	45 50	29 6	31 8							
45 60*		29 6	31 9							
46 00		29 9	32 2	45 00	47 50	215	.5	364	.5	4
	46 50	30 2	32 6							
	47 00	30 6	32 9							
	47 50	30 9	33 2							
47 60*		30 9	33 3							
48 00		31 2	33 6							
	48 50	31 5	34 0							
	49 00	31 8	34 3	47 50	50 00	220	.5	369	.5	
	49 50	32 2	34 6							
49 60*		32 2	34 7							
50 00		32 5	35 0							

**Note**— The figure is indicative of dimensions only and does not specify design features

\*These diameters are intended to be used only for pre-finishing operations ( see 3.4 ).

## EXPLANATORY NOTE

This standard was first published in 1969. It has been revised to bring it in line with the work done at ISO level. In the preparation of this standard considerable assistance has been drawn from ISO 235/II-1975 Core drills with parallel shank and morse taper shanks — Recommended stocked sizes, issued by International Organization for Standardization.